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EXAMINER

ASSOUAD, PATRICK J

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/682,008

Applicant(s)

LESLIE, DAVID S.

Examiner

Patrick J Assouad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2-3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 3/26/02 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because not all of the cited references include a date of publication. It has been placed in the application file, and not all of the information referred to therein has been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

### ***Drawings***

2. The drawings are objected to because the text is too small to be easily read. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10, 14-18, and 21-25 are rejected under 35 U.S.C. 102(b) as being anticipated by **Yalla et al. ('011)** patented 6/29/93.

Note Figs. 1, 5 and 15 of **Yalla et al.('011)** are reproduced below.

5. **Yalla et al.('011)** disclose a multifunction protective relay system. From the

Abstract:

A protective relay system for generation apparatus connectable to a three-phase alternating current electrical utility system. The relay system includes a dual processing architecture wherein a digital signal processor executes all the signal-processing algorithms, and a separate microprocessor is used for input/output data processing. A dual-ported RAM is used to effect a fast communication link between the digital signal processor and the microprocessor to accomplish high-speed protective relaying functions to selectively trip and close a circuit breaker at a generator or cogenerator site, or that which connects it to an electric utility system.

6. The correspondence between the instant claimed invention and that of **Yalla et al.('011)** is as follows:

a) "measuring at least one of a voltage, a current and a phase angle" is seen in at least Fig. 5 with the numerous voltage and current input signals 29;

b) "displaying at least one of a relay contact status and the power values on a display" is seen in at least Fig. 1, see contact breaker status and various over- or under-voltage and current conditions, and also see the LCD element 41 of Fig. 5;

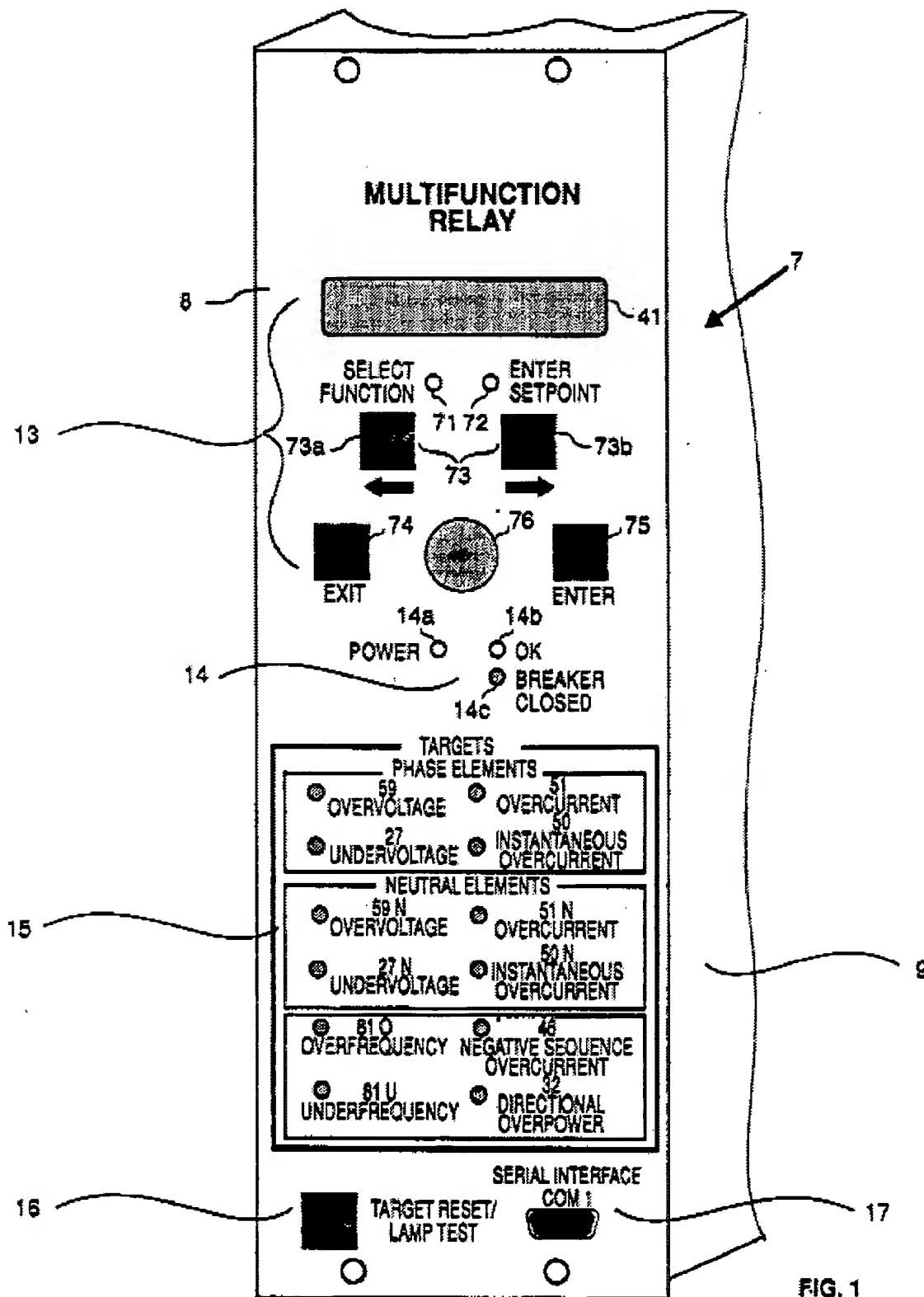
c) a "plurality of electrical relays" is the plurality of relays connected to the input and output boards in Fig. 5;

d) a "display" is LCD 41 of Fig. 5;

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e) a “microprocessor” and “memory” are the combination processor 43 & DSP36 and RAM 38 of Fig. 5; and finally,

f) a “plurality of printed circuit boards...” is the plurality of boards seen in at least Fig. 5.



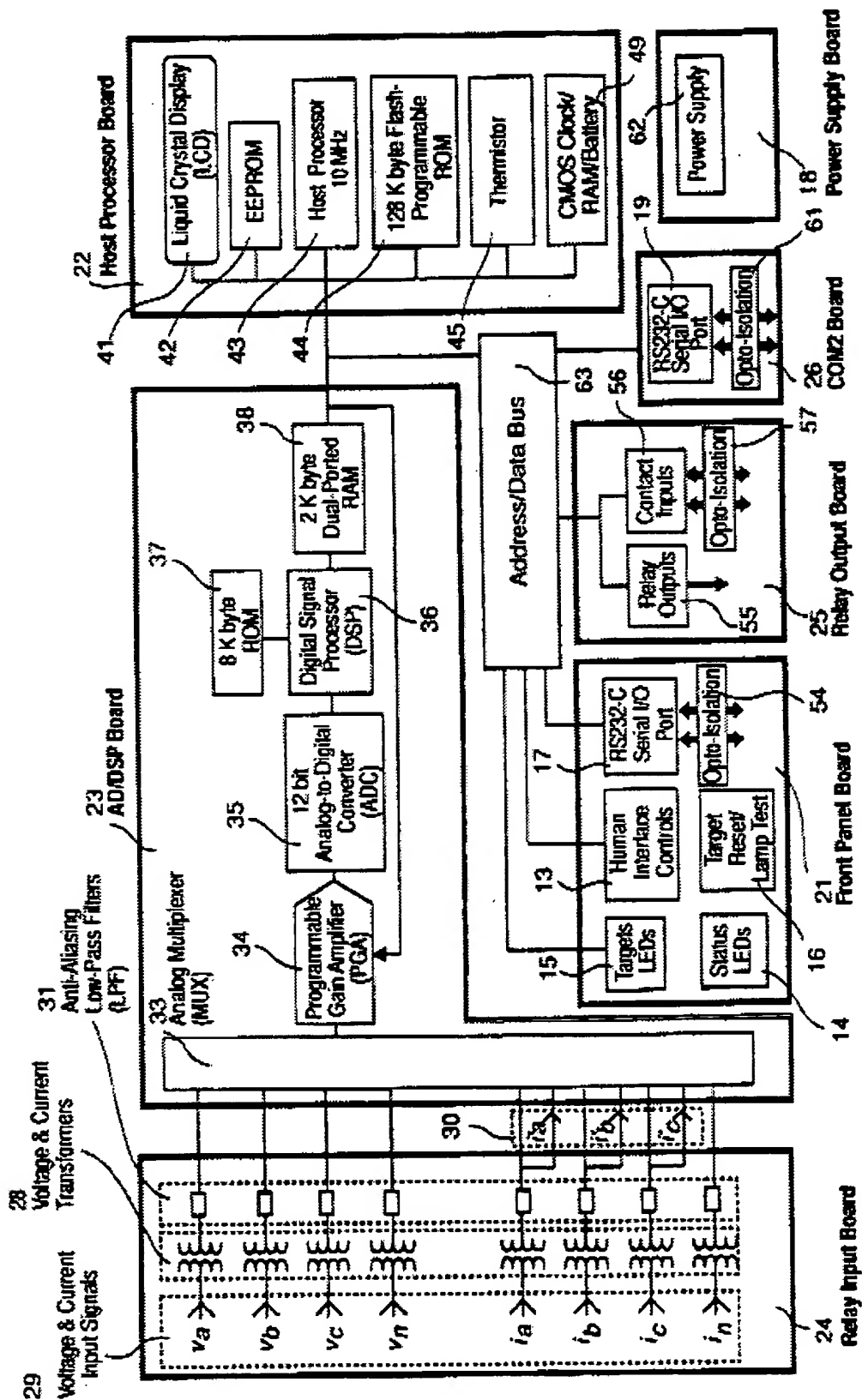


FIG. 5

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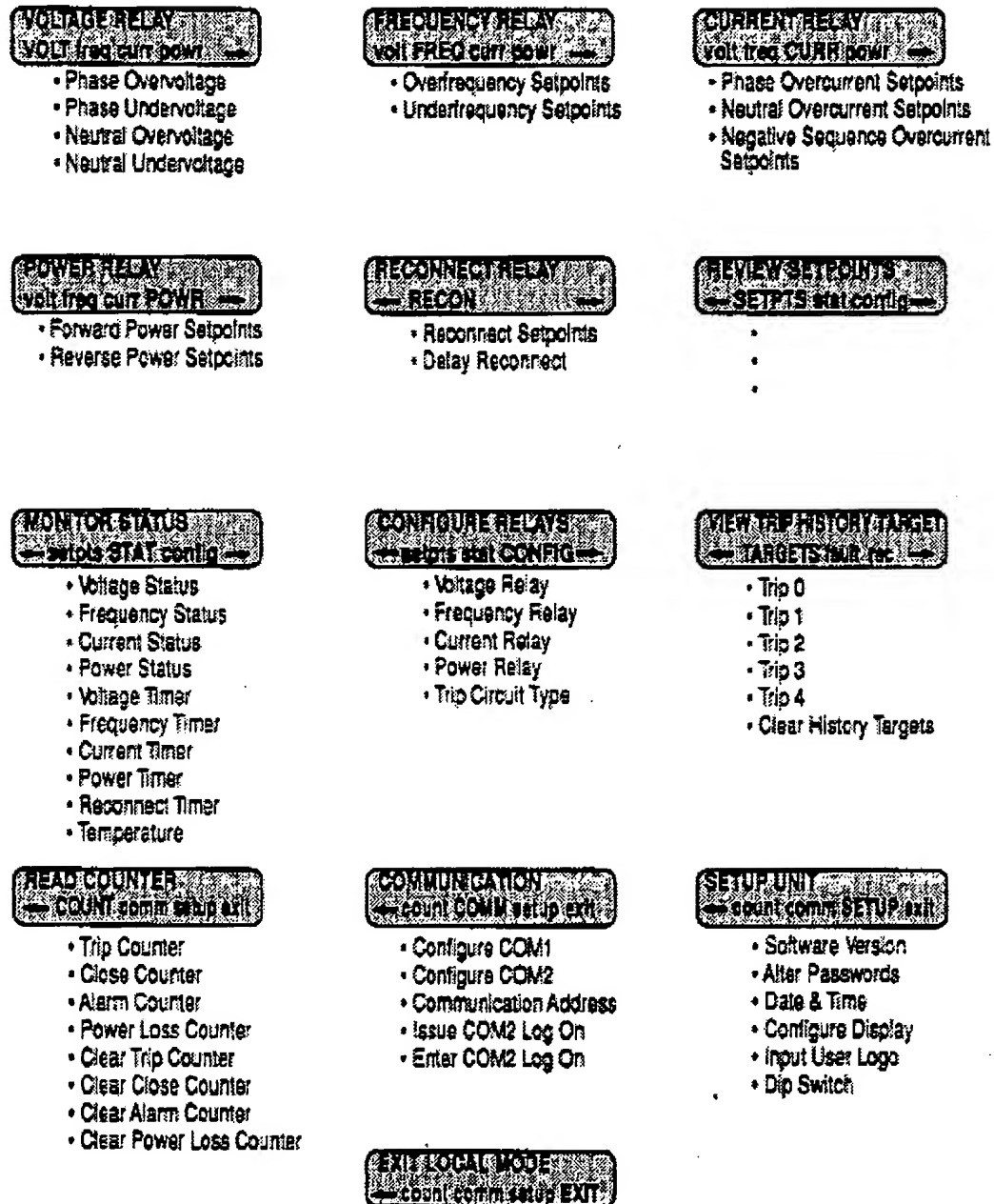


FIG. 15



7. With respect to dependent claims 2, 16, 17, and 21, see at least the relay I/O boards of Fig. 5 and Fig. 15 of Yalla et al. which show numerous example relays and their related settings and related measurements.

With respect to dependent claim 3, the MPRS 7 of Yalla et al. samples continuously at 960 Hz. See at least cols. 7-8.

With respect to dependent claim 4, see at least the diagnostic mode of Table 1 and Fig. 3 of Yalla et al.

With respect to dependent claims 5-6, see at least the various RMS values shown in Fig. 17.

With respect to dependent claims 7-8, and 18, see at least the Trip History of Fig. 15 or an example Trip time of occurrence of Fig. 16 of Yalla et al.

With respect to dependent claims 14-15 and 24, see at least the power supply and board 18,62 of Fig. 5 of Yalla et al.

With respect to dependent claims 22-23, see at least the connection for current-based fault detection of Fig. 8 of Yalla et al.

With respect to dependent claim 25, see at least the password of Fig. 15 of Yalla et al.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 11-13 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Yalla et al. ('011)** as applied to claim 10 above, and further in view of **Yalla** ("A Digital Multifunction Protective Relay", IEEE, 1992) and **Yalla et al.** ("Application of Multifunction Generator Protection Systems", IEEE, 1998).

10. The differences between the instant claimed invention (dependent claims 11-13 and 19-20) and that of **Yalla et al. ('011)** lie in the "watchdog relay" function and the RS-485 capability.

11. Note that **Yalla et al.('011)** does disclose RS232-C I/O in at least Fig. 5.

12. **Yalla** discloses a watchdog timer reset in his digital multifunction protective relay. See at least pg. 198, item 1, under "self-checking functions". **Yalla et al.** disclose that "their MGPS may have bi-directional communication ports which can be RS-232, RS-485..." on pg. 1285.

13. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the RS-485 and watchdog teachings of **Yalla** and **Yalla et al.**, respectively, into the multifunction protective relay of **Yalla et al. ('011)** because all three documents have common inventor or writer Yalla, and this common inventor clearly saw the benefits of such a combination, namely, communicating with

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the external world, and for performing self-checking, which is "one of the major advantages of using the digital relay technology" (pg. 198 of **Yalla**).

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art is replete with digital multifunction protective relays. See the attached PTO-892.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J Assouad whose telephone number is 703-305-3811. The examiner can normally be reached on Tuesday-Friday, 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 703-308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Patrick J Assouad  
Primary Examiner  
Art Unit 2857

pja  
June 11, 2003